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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,911	09/02/2008	Katsumi Goto	12088/046001	1403
22511	7590	09/03/2009		
OSHA LIANG L.L.P. TWO HOUSTON CENTER 909 FANNIN, SUITE 3500 HOUSTON, TX 77010			EXAMINER LEE, MICHAEL S	
			ART UNIT 3677	PAPER NUMBER
			NOTIFICATION DATE 09/03/2009	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@oshaliang.com  
buta@oshaliang.com

# Office Action Summary

**Application No.**

10/585,911

**Applicant(s)**

GOTO, KATSUMI

**Examiner**

MICHAEL LEE

**Art Unit**

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 September 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-15 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-893)  
Paper No(s)/Mail Date 5/1/09; 6/12/09; 7/13/09  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This communication is a first office action on the merits. Claims 1-15, as originally filed are currently pending and have been considered below.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuivas et al. (US 6,900,981) in view of Koshikawa (JP 11-50727).

Regarding claim 1, Kuivas et al. discloses a mobile terminal comprising:

a hinge main body (36);

a first hinge shaft (38, Fig. 4 as annotated below) turnably supported by said hinge main body;

a second hinge shaft (38, Fig. 4 as annotated below) arranged parallel to said first hinge shaft and turnably supported by said hinge main body (Fig. 4);

a first gear (40, Fig. 4) non-turnably disposed at said first hinge shaft (by means of non circular cross section) and a second gear (40, Fig. 4) non-turnably disposed at said second hinge shaft and meshed with said first gear (Fig. 4).

Kuivas et al. fail to disclose a first turn biasing means adapted to turn bias said first hinge shaft in one direction when said first hinge shaft is located in a predetermined first position being disposed at least at one of between said hinge main body and said first hinge shaft and between said hinge main body and said second hinge shaft.

Koshikawa teaches a hinge device comprising a first turn biasing means (11a) [adapted to turn bias said first hinge shaft in one direction when said first hinge shaft is located in a predetermined first position]\* being disposed between a hinge main body (2a) and a hinge shaft (9a).

From this teaching of Koshikawa, it would have been obvious to one skilled in the art at the time of the invention to modify the mobile terminal of Kuivas et al. to include the biasing means on the shaft to limit the movement of the hinge at one extreme position to be biased in an opposite direction.

Examiner's note\*: the above (and below) statements in brackets are examples of intended use failing to limit the structure of the claimed invention. The prior art must only be capable of performing said functional recitations to be applicable and in the instant case, the prior art of Yang is indeed capable. Note that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham, 2 USPQ2d 1647 (1987)*.

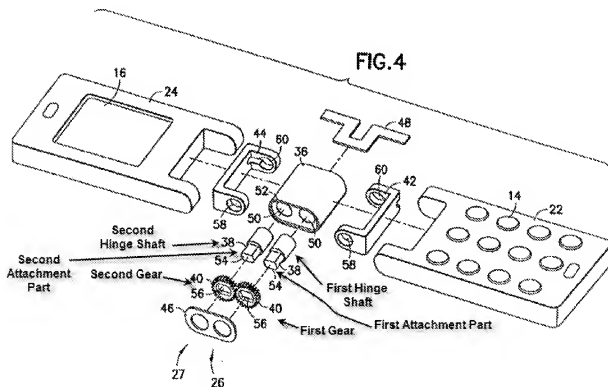


Fig. 4 as reproduced from Kuivas et al. (US 6,900,981)

Regarding claim 2, Koshikawa further teaches a second turn biasing means (12a, Fig. 4) [adapted to turn bias said first hinge shaft in the other direction when said

first hinge shaft is located in a predetermined second position away from said first position in a peripheral direction]\* is disposed (on 5) at least one of between said hinge main body (2a) and said first hinge shaft (9a) and between said hinge main body and said second hinge shaft.

From this teaching of Koshikawa, it would have been obvious to one skilled in the art at the time of the invention to further modify the mobile terminal of Kuivas et al. to include the second biasing means on the shaft to limit the movement of the hinge at another extreme position to be biased in the opposite direction.

Regarding claim 3, Koshikawa further teaches the hinge device comprising:

a turn restricting means (14b) [adapted to restrict turning of said first hinge shaft with respect to said hinge main body with a predetermined force when said first hinge shaft is located in a predetermined restriction range between said first position and said second position]\* is disposed between said hinge main body (2a) and said hinge shaft (9a).

From this teaching of Koshikawa et al. it would have been obvious to one skilled in the art at the time of the invention to further modify the mobile terminal of Kuivas et al. to include a first and second turn restricting means on both shafts to limit rotation at a rotational position of the hinge.

Regarding claim 4, Koshikawa further comprising:

a third turn biasing means (04, Fig. 4) [adapted to turn bias said first hinge shaft either in said one or the other direction when said first hinge shaft is located in a predetermined intermediate position between said first position and said second position]\* is disposed at one of between said hinge main body and said first hinge shaft and between said hinge main body and said second hinge shaft; and

a turn prohibiting means (04, Fig. 4 as duplicated on the second shaft) [adapted to prohibit said first hinge shaft from being turned by a turn biasing force of said third turn biasing means with a predetermined prohibiting force when said first hinge shaft is located in said intermediate position] is disposed at the **other**.

From this teaching of Koshikawa et al. it would have been obvious to one skilled in the art at the time of the invention to further modify the mobile terminal of Kuivas et al. to include the turn biasing and turn prohibiting means to limit rotation at an intermediate position.

Regarding claim 5, Koshikawa further teaches the hinge device,

wherein said turn restricting means (14b) [adapted to restrict turning of said first hinge shaft with respect to said hinge main body with a predetermined force when said first hinge shaft is located in a predetermined first restriction range between said first position and said intermediate position and when said first hinge shaft is located in a predetermined second restriction range between said intermediate position and said second position]\* is disposed at least at one

of between said hinge main body (2a) and said first hinge shaft (9a) and between said hinge main body and said second hinge shaft; and

From this teaching of Koshikawa, it would have been obvious to one skilled in the art at the time of the invention to further modify the mobile terminal of Kuivas et al. to include the turn restricting means of Koshikawa et al. disposed between the hinge main body and the hinge shaft to limit rotation at a rotational position of the hinge.

Regarding claims 6 and 8-11, Kuivas et al. further disclose:

a first attachment part (54, Fig. 4 as annotated above) wherein said first hinge shaft (Fig. 4 as annotated above) is provided at one end part thereof; and

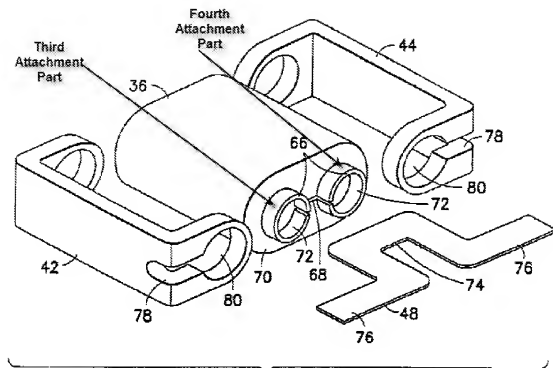
a second attachment part (Fig. 4 as annotated above) wherein said second hinge shaft (Fig. 4 as annotated above) is provided at one end part thereof.

Regarding claims 7 and 12-15, Kuivas et al. further disclose:

a third attachment part (66, Fig. 10 as annotated below), wherein said hinge main body is provided at a part thereof located on the same axis as the first hinge shaft with said third attachment part (Fig. 10); and

a fourth attachment part (66, Fig. 10 as annotated below), wherein said hinge main body is provided at a part thereof located on the same axis as said second hinge shaft with said fourth attachment part (Fig. 10).





**FIG. 10**

Fig. 10 as reproduced from Kuivas et al. (US 6,900,981)

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See Form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL LEE whose telephone number is (571)270-5735. The examiner can normally be reached on M-F 7:30-5:00 Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on 571-272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. L./  
Examiner, Art Unit 3677

/Victor Batson/  
Supervisory Patent Examiner, Art Unit 3677